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MassDOT Regional Bus Network Assessment

Office of Transportation Planning
& Rail and Transit Division

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Chapter 1 – Purpose and Policy Context

Introduction

The Massachusetts Department of Transportation's Rail and Transit Division (RTD) with assistance from the Office of Transit Planning (OTP) is building on previous planning efforts between RTD, Central Transportation Planning Staff (CTPS), and the Boston Region Metropolitan Planning Organization (MPO) to study regional bus service in the Commonwealth. Earlier efforts include the Massachusetts Regional Bus Study (2013) and the Regional Bus Network Assessment (2016). The aim of this study is to understand the full scope of service, areas that might need improvement, and areas that might have redundancies across the Commonwealth.

Policy Context

Since the deregulation of the private bus industry in the 1980s, current service provided by private carriers responds to demand. Without federal or state oversight, carriers have been able to choose their own routes, schedules, and fares. Deregulation has also led to the reduction of rural routes in favor of more profitable ones. In order to compensate for the reduction of rural and intercity routes, funding specifically designed for rural intercity bus services is included under the FTA's Section 5311(f) program and the Congestion Mitigation and Air Quality Improvement (CMAQ) program.

To maintain quality of service, MassDOT has historically supported private carrier intercity bus and commuter bus services. In 1983, as part of the Intercity Bus Capital Assistance Program (IBCAP), MassDOT used bond funding to purchase and lease new coach buses to private carriers for use on certain routes. However, the IBCAP was not designed to address gaps in connectivity or coverage for Massachusetts' small rural population (as defined by the census). The amount of rural transit funding is limited, and the 15% share of that amount set aside for Section 5311(f) is smaller yet, limiting the state's ability to address rural intercity needs through this program.

Section 5311(f) awards for the past 10 years, in addition to the upcoming FY 2025, are summarized in the table below.

Award Year	Applicant	Project Description	Award Amount
FY 2013	Plymouth & Brockton Street Railway	Daily round-trip service between Hyannis and Provincetown, including additional trips during summer months	$246,028
FY 2013	Peter Pan Bus Lines	Rural service	$279,750
FY 2014	Plymouth & Brockton Street Railway	Daily round-trip service between Hyannis and Provincetown, including additional trips during summer months	$265,500
FY 2014	Peter Pan Bus Lines	Multi-component program to market multimodal services in Berkshire, Franklin, Hampshire, Hampden and Barnstable Counties	$160,000
FY 2015	Plymouth & Brockton Street Railway	Daily round-tri service between Hyannis and Provincetown	$271,731
FY 2015	Peter Pan Bus Lines	Replace obsolete or inoperable wheelchair lifts	$190,000
FY 2015	DATTCO	Replace obsolete or inoperable wheelchair lifts	$5,440
FY 2015	DATTCO	Procure stand up transmission jack to repair BusPlus coaches	$36,800
FY 2016	Plymouth & Brockton Street Railway	Daily round-trip service between Hyannis and Provincetown	$271,731
FY 2017	TrueNorth	N/A	$191,034
FY 2017	Peter Pan Bus Lines	Albany-Williamstown-Greenfield-Springfield Route	$283,616
FY 2017	Plymouth & Brockton Street Railway	Hyannis - Provincetown Route	$271,731
FY 2018	Peter Pan Bus Lines	Albany-Williamstown-Greenfield-Springfield Route	$286, 613
FY 2018	Plymouth & Brockton Street Railway	Hyannis - Provincetown Route	$335, 985
FY 2018	Greyhound Lines	Albany-Pittsfield-Springfield Route	$184, 544
FY 2019	Greyhound Lines	Albany-Pittsfield-Springfield Route	$184, 544
FY 2020	Peter Pan Bus Lines	Hyannis - Provincetown Route	$280, 760

FY 2020	Greyhound Lines	Albany-Pittsfield-Springfield Route	$231, 046
FY 2021	Peter Pan Bus Lines	Hyannis - Provincetown Route	$423,780
FY 2021	Greyhound Lines	Albany-Pittsfield-Springfield Route	$231, 046
FY 2021	Pioneer Valley Transit Authority	Amherst-Worcester/Quaboag Valley	$111,029
FY 2022	Greyhound Lines	Albany-Pittsfield-Springfield Route	$382,990
FY 2022	Peter Pan Bus Lines	Hyannis - Provincetown Route	$457,792
FY 2022	Pioneer Valley Transit Authority	Amherst-Worcester/Quaboag Valley	$88,029
FY 2023	Peter Pan Bus Lines	Hyannis - Provincetown Route	$458,644
FY 2023	Greyhound Lines	Albany-Pittsfield-Springfield Route	$263,028
FY 2023	Pioneer Valley Transit Authority	Amherst-Worcester/Quaboag Valley	$99,178
FY 2024	Peter Pan Bus Lines	Hyannis - Provincetown Route	$484, 572
FY 2024	Plymouth & Brockton Street Railway	Hyannis - Provincetown Route	$339, 147
FY 2024	Greyhound Lines	Albany-Pittsfield-Springfield Route	$297,584
FY 2024	Greyhound Lines	Albany-Pittsfield-Springfield Route	$306, 513
FY 2024	Pioneer Valley Transit Authority	Amherst-Worcester/Quaboag Valley	$98,086

Some of these awards are for operating assistance, typically 50% of the total operating cost. Some projects with eligible in-kind match have been funded at 100% federal share.

The BusPlus Program

Conceived in 2013, BusPlus was a program intended to be a partnership between the Commonwealth and private carriers aimed at improving regional bus service. The main components of the former program were:

- **Capital Assistance** – Under BusPlus, the state would provide capital funding to private carriers to allow them to operate new routes in previously underserved areas. Additionally, the state purchased 40 new coach buses to be used on these new routes to improve passengers' experience.

- **Operating Assistance** – At its inception, BusPlus would see state funds go to private carriers to operate routes on three (originally four) corridors that were identified to meet previously unmet needs. Funding was planned to eventually be transitioned to FTA section 5311(f) rural intercity bus funds.
- **Improved Information and Ticketing** – In addition to new buses, improving the passengers' experience would be achieved with technology such as General Transit Feed Specification (GTFS), which allows bus route information to be accessed online.

Stakeholders

The survey component of this report was conducted to identify unmet needs among stakeholder groups across the state. The survey process categorized stakeholders into four groups (RTAs, MPOs and RPAs, private carriers, and general stakeholders) and sent each group a different version of the survey. The table below outlines stakeholder groups. MassDOT OTP reached out to for the survey along with the area they serve.

The needs identified by survey respondents were recorded and their stated needs were used to help develop service recommendations in Chapter 5.

Category	Organization	Area Served
General	Merrimack Valley TMA	Andover, Haverhill, Lawrence, Methuen, North Andover
General	MassHire Franklin Hampshire Workforce Board	Greenfield
General	MassHire Franklin Hampshire Career Center	Greenfield
General	North Shore TMA	Beverly, Danvers, Lynn, Peabody, Salem
General	Dalton Traffic Commission	Dalton
General	Alewife TMA	Cambridge (Alewife/Fresh Pond region)
General	CrossTown Connect TMA	Acton, Boxborough, Concord, Littleton, Maynard, Sudbury, Westford
General	Neponset Valley TMA	Canton, Dedham, Foxborough, Norwood, Westwood
General	Watertown TMA	Watertown
General	CommuteWorks/MASCO (Longwood TMA)	Boston Longwood Medical and Academic Area

General	Assembly Connect	Assembly Square
General	Charles River TMA	Cambridgeport, Kendall Square, East Cambridge
General	Lower Mystic TMA	Charlestown, Chelsea, Everett, Malden, Medford
General	128 Business Council	Waltham
General	Allston-Brighton TMA	Allston, Brighton
General	Devens Enterprise Commission	Devens
General	Seaport TMA	South Boston Waterfront
General	495/MetroWest Corridor Partnership	Westborough
General	Middlesex 3 TMA	Bedford, Billerica, Burlington, Carlisle, Chelmsford, Lowell, Tewksbury, Tyngsborough
General	Williams College	Williamstown
General	Lexpress	Lexington
MPO/RPA	MRPC/Montachusett MPO	Leominster
MPO/RPA	OCPC	Brockton
MPO/RPA	BRPC	Pittsfield
MPO/RPA	CCC	Barnstable
MPO/RPA	Boston Region MPO	Boston
MPO/RPA	MAPC	Boston
MPO/RPA	FRCOG/Franklin Region MPO	Franklin
MPO/RPA	CMRPC	Worcester
MPO/RPA	SRPEDD	Taunton
MPO/RPA	PVPC	Springfield
MPO/RPA	MVC/Martha's Vineyard MPO	Martha's Vineyard
MPO/RPA	MVPC	Haverhill
MPO/RPA	CMRPC/Central MA MPO	Worcester
MPO/RPA	NPEDC/Nantucket MPO	Nantucket
MPO/RPA	NMCOG/Northern Middlesex MPO	Lowell
MPO/RPA	Southwest Region Planning Commission	NH

MPO/RPA	NPEDC	Nantucket
Private	Bloom Bus	Boston, Southeastern Massachusetts
Private	Coach Co.	Nationwide
Private	C&J Bus Lines	Boston Logan Airport, Boston South Station, New Hampshire, New York
Private	Coach USA/Megabus	Nationwide
Private	DATTCO	Nationwide
Private	Peter Pan Bus Lines	CT, MA, NJ, NY, RI
Private	Concord Coach Lines	Boston Logan Airport, Boston South Station, NH, ME
Private	Plymouth & Brockton	Boston, Cape Cod, South Shore
Private	Greyhound	Nationwide
Private	Yankee Line	Acton, Boston, Concord
Private	Massport	Boston Logan Airport, Back Bay (Boston), Braintree, Danvers, Framingham, Woburn
RTA	VTA	Martha's Vineyard
RTA	MART	Fitchburg
RTA	LRTA	Lowell
RTA	SRTA	New Bedford
RTA	NRTA	Nantucket
RTA	MWRTA	Framingham
RTA	WRTA	Worcester
RTA	GATRA	Taunton
RTA	BAT	Brockton
RTA	MEVA	Haverhill
RTA	BRTA	Pittsfield
RTA	PVTA	Springfield
RTA	CCRTA	Hyannis
RTA	FRTA	Greenfield
RTA	CATA	Gloucester

Structure of Report

The remainder of this report documents the evaluation of bus networks across Massachusetts operated by both public and private carriers using a defined set of standards developed by the study team to determine unmet needs. Chapter 2 of the report reviews existing services across the Commonwealth and outlines service routes or increases in service. Chapter 3 takes a look at the demographics of the state to better understand where there might be a need for improved bus service. Chapter 4 breaks down service needs identified in both previous studies by stakeholders, as well as the survey component, of this study. Finally, Chapter 5 provides an assessment of potential bus routes that builds on needs and survey input from previous chapters.

Chapter 2 – Existing Service

Introduction

To better understand transit access and service coverage across the Commonwealth, MassDOT OTP conducted an in-depth review of the regional transportation network. This chapter provides an update on the inventory of regional bus services in Massachusetts and evaluates the network against service standards developed in previous iterations of this study.

Inventory of Regional Bus Service

Massachusetts is currently served by dozens of public and private bus carriers. Since the last comprehensive inventory in 2015, several providers have modified their routes and network coverage. The primary changes include the addition or elimination of routes and changes in service frequency. The below information describes the coverage of each carrier as of May 2024. Latter sections go into more detail at the stop and frequency level.

Public Carriers

Public carriers include the Massachusetts Bay Transportation Authority (MBTA) and 15 Regional Transit Authorities (RTAs) that provide fixed route and paratransit service in communities across the state. MBTA bus service spans 171 routes across 65 municipalities[1] with over 7,000 stops throughout the region. The RIDE, the MBTA's paratransit service, operates in part or in full in 64 cities and towns.[2] The MBTA is currently in the process of updating and expanding their bus system via the Bus Network Redesign, a $9.6 billion, 5-year capital investment plan to improve bus service.

[1]Full RIDE coverage communities: Arlington, Bedford, Belmont, Beverly, Boston, Braintree, Brookline, Burlington, Cambridge, Canton, Chelsea, Cohasset, Concord, Danvers, Dedham, Everett, Hingham, Holbrook, Hull, Lexington, Lincoln, Lynn, Lynnfield, Malden, Marblehead, Medfield, Medford, Melrose, Middleton, Milton, Nahant, Needham, Newton, Norwood, Peabody, Quincy, Randolph, Reading, Revere, Salem, Saugus, Sharon, Somerville, Stoneham, Swampscott, Topsfield, Wakefield, Walpole, Waltham, Watertown, Wenham, Weston, Westwood, Weymouth, Wilmington, Winchester, Winthrop, and Woburn. Partial RIDE coverage is available in Abington, Avon, Billerica, Brockton, Stoughton, and Wellesley.

[2]These cities and towns include Arlington, Bedford, Belmont, Beverly, Boston, Braintree, Brookline, Burlington, Cambridge, Canton, Chelsea, Cohasset, Concord, Danvers, Dedham, Dover, Everett, Framingham, Hamilton, Hingham, Holbrook, Hull, Lexington, Lincoln, Lynn, Lynnfield, Malden, Manchester, Marblehead, Medfield, Medford, Melrose, Middleton, Milton, Nahant, Natick, Needham, Newton, Norfolk, Norwood, Peabody, Quincy, Randolph, Reading, Revere, Salem, Saugus, Sharon, Somerville, Stoneham, Swampscott, Topsfield, Wakefield, Walpole, Waltham, Watertown, Wellesley, Wenham, Weston, Westwood, Weymouth, Wilmington, Winchester, Winthrop, Woburn.

RTAs serve urban, suburban, and some rural areas across the state. A full list of RTAs and their member cities and towns is shown below. A map of their service areas is available online on the mass.gov website.

Regional Transit Authority	Member Cities and Towns
Berkshire Regional Transit Authority (BRTA)	Adams, Alford, Becket, Cheshire, Clarksburg, Dalton, Egremont, Florida, Great Barrington, Hancock, Hinsdale, Lanesborough, Lee, Lenox, Monterey, Mount Washington, New Ashford, New Marlborough, North Adams, Otis, Peru, Pittsfield, Richmond, Savoy, Sheffield, Stockbridge, Washington, West Stockbridge, Williamstown, Windsor
Brockton Area Transit Authority (BAT)	Abington, Avon, Bridgewater, Brockton, East Bridgewater, Easton, Hanson, Rockland, Stoughton, West Bridgewater, Whitman
Cape Ann Transportation Authority (CATA)	Essex, Gloucester, Hamilton, Ipswich, Rockport
Cape Cod Regional Transit Authority (CCRTA)	Barnstable, Bourne, Brewster, Chatham, Dennis, Eastham, Falmouth, Harwich, Mashpee, Orleans, Provincetown, Sandwich, Truro, Wellfleet, Yarmouth
Franklin Regional Transit Authority (FRTA)	Ashfield, Bernardston, Blandford, Buckland, Charlemont, Chester, Chesterfield, Colrain, Conway, Cummington, Deerfield, Erving, Gill, Goshen, Granville, Greenfield, Hatfield, Hawley, Heath, Huntington, Leyden, Middlefield, Montague, Montgomery, New Salem, Northfield, Orange, Petersham, Phillipston (also a member of MART), Plainfield, Rowe, Russell, Shelburne, Shutesbury, Southampton, Southwick, Warwick, Wendell, Westhampton, Whately, Worthington
Greater Attleboro Taunton Regional Transit Authority (GATRA)	Attleboro, Bellingham, Berkley, Carver, Dighton, Duxbury, Foxborough, Franklin, Halifax, Hanover, Kingston, Lakeville, Mansfield, Marshfield, Medway, Middleborough, Norfolk, North Attleboro, Norton, Pembroke, Plainville, Plymouth, Plympton, Raynham, Rehoboth, Scituate, Seekonk, Taunton, Wareham, Wrentham
Lowell Regional Transit Authority (LRTA)	Acton, Billerica, Carlisle, Chelmsford, Dracut, Dunstable, Groton, Lowell, Maynard, Pepperell, Tewksbury, Townsend, Tyngsborough, Westford
Merrimack Valley Regional Transit Authority (MeVa)	Amesbury, Andover, Boxford, Georgetown, Groveland, Haverhill, Lawrence, Merrimac, Methuen, Newbury, Newburyport, North Andover, North Reading, Rowley, Salisbury, West Newbury
MetroWest Regional Transit Authority (MWRTA)	Ashland, Dover, Framingham, Holliston, Hopedale, Hopkinton, Hudson, Marlborough, Milford, Natick, Sherborn, Southborough, Sudbury, Wayland, Wellesley, Weston

Montachusett Regional Transit Authority (MART)	Ashburnham, Ashby, Athol, Ayer, Barre (also a member of WRTA), Bolton, Boxborough, Fitchburg, Gardner, Hardwick, Harvard, Hubbardston, Lancaster, Leominster, Littleton, Lunenburg, Phillipston (also a member of FRTA), Royalston, Shirley, Sterling, Stow, Templeton, Townsend, Westminster, Winchendon
Nantucket Regional Transit Authority (NRTA)	Nantucket
Pioneer Valley Transit Authority (PVTA)	Agawam, Amherst, Belchertown, Chicopee, East Longmeadow, Easthampton, Granby, Hadley, Hampden, Holyoke, Leverett, Longmeadow, Ludlow, Northampton, Palmer, Pelham, South Hadley, Springfield, Sunderland, Ware, West Springfield, Westfield, Wilbraham, Williamsburg
Southeastern Regional Transit Authority (SRTA)	Acushnet, Dartmouth, Fairhaven, Fall River, Freetown, Mattapoisett, New Bedford, Somerset, Swansea, Westport
Vineyard Transit Authority (VTA)	Aquinnah, Chilmark, Edgartown, Oak Bluffs, Tisbury, West Tisbury
Worcester Regional Transit Authority (WRTA)	Auburn, Barre (also a member of MART), Berlin, Boylston, Brimfield, Brookfield, Charlton, Clinton, Douglas, Dudley, East Brookfield, Grafton, Holden, Holland, Leicester, Millbury, New Braintree, North Brookfield, Northborough, Northbridge, Oakham, Oxford, Paxton, Princeton, Rutland, Shrewsbury, Southbridge, Spencer, Sturbridge, Sutton, Wales, Warren, Webster, West Boylston, West Brookfield, Westborough, Worcester

Private Carriers

Eleven private carriers currently operate regular, fixed route regional bus service in Massachusetts. Changes in carriers from the last inventory include:

- Boston Express no longer serves either Manchester or the Manchester-Boston Regional Airport, with service being cut back to the North Londonderry Transportation Center.
- Coach Company discontinued its Boston to Newburyport route. OurBus now operates a route from Boston to Methuen.
- Greyhound subsidiary BoltBus ceased operation as of July 2021. In September 2021, FlixMobility acquired Greyhound. FlixMobility made several changes to their service:
  - Greyhound no longer operates the Boston-Worcester-Springfield-Albany, NY route. The route now goes direct from Boston to Albany, NY.
  - Greyhound runs additional service directly to Worcester and Springfield that do not connect to Albany, NY.
  - Some Greyhound trips from Boston to Newark make a transfer in New York City; others are direct.

- DATTCO discontinued its commuter lines from Boston to New Bedford in April 2023. Peter Pan Bus Lines now runs that service and expanded the route to include Logan Airport. DATTCO/Megabus also discontinued the following services:
    - Boston to Burlington, VT
    - Boston to Northampton and Amherst Center. Megabus does offer service between Northampton and Amherst Center, which does not qualify as regional service.
    - Fairhaven/New Bedford to New York via Fall River and Providence, RI
    - Fairhaven to New York via UMass Dartmouth, Newport, RI and Kingston, RI
- LimoLiner, which operated service from Boston to New York via Framingham discontinued its service as of December 31, 2019.
- Lucky Star, which operated service from Boston to New York, was acquired by FlixMobility in November 2022. FlixMobility now operates that route.
- The Massachusetts Area Express (MAX) bus discontinued its Northampton-Twin Cities-Worcester service.
- MEVA, formerly MVRTA, no longer operates commuter service to Boston.
- Peter Pan Bus Lines no longer operates the Boston-Fall River-Newport, RI route. Other Peter Pan Bus Lines changes include:
    - The Boston-Springfield route no longer makes stops in Framingham. The route now follows Springfield to Hartford, CT to Worcester to Boston.
    - The Boston-Woods Hole route no longer makes stops in Wareham. The route now follows Boston to Bourne to Falmouth to Woods Hole.
    - The Concord, NH to Foxwoods Casino, CT with stops in between has been discontinued.
    - The Hyannis to Providence, RI route no longer stops in Fall River and New Bedford and instead stops in Bourne.
    - The Boston to Sturbridge commuter bus has been discontinued.
    - The Boston to Marlborough commuter bus has been discontinued.
    - The Springfield, CT to Foxwoods Casino, CT has been discontinued.
    - The New York, NY-Sheffield-Great Barrington-Lee-Lenox-Pittsfield-Williamstown route has been amended to go through the following cities: NYC, Worcester Union Station, Springfield, Lee, Lenox, Pittsfield, Williamstown.
    - The Springfield-Holyoke-Northampton-South Hadley-Amherst-Deerfield-Greenfield has been discontinued.
    - The Springfield-New York service no longer stops in New Britain or New Haven, CT.
- Plymouth & Brockton discontinued the following services:
    - Hyannis-Provincetown
    - Boston-Rockland-Kingston-Plymouth
    - Boston-Rockland-Marshfield-Duxbury
    - Boston-Rockland-Plymouth-Sagamore-Barnstable
    - Hyannis Hyannis-Provincetown local
    - Plymouth-Middleborough-Taunton-Somerset-Providence, RI

- Yo! Bus service between Boston and New York ended.
- Yankee absorbed Buckingham Bus Company, which runs on-demand service.

All changes to bus stops are reflected in the text above and the below table, which describes stops that have been added to eliminated. All frequency changes are similarly described in the text above and the table below.

Carrier	Route Name	Towns Served	Days of Service	Round trips/ Day	WD Freq. Change Since 2015	Round trips/ WE day	WE Freq. Change Since 2015
Boston Express	Boston-Salem, NH-Londonderry, NH (I-93)	Boston, Logan Airport, Londonderry, NH, Salem, NH, Nashua, NH, Tyngsborough, NH	7	37	Increase	27	Increase
Boston Express	Boston-Tyngsborough-Nashua, NH-Manchester, NH (Route 3)	Boston, Logan Airport, Tyngsborough, Nashua NH, Manchester NH	7	12	Decrease	9	Decrease
C&J	Boston-Newburyport-Portsmouth, NH-Dover, NH	Boston, Logan Airport, Newburyport, Portsmouth, NH, Dover NH	7	30	Similar	22	Similar
Concord Coach Lines	Concord, NH-North Londonderry, NH-Salem, NH-Boston, MA-Logan	Boston, Logan Airport, Boston South Station, Londonderry, NH, Salem, NH, Nashua, NH, Concord, NH	7	23	Similar	1	Decrease
Concord Coach Lines	Boston-Portland, ME	Boston, Logan Airport, Portland ME	7	26	Same	26	Same
Dartmouth Coach	Upper Valley-Boston, South Station-Logan Airport	Boston, Logan Airport, New London NH, Lebanon NH, Hanover NH	7	11	Increase	11	Increase
Go Buses	Cambridge-Newton-New	Cambridge, MA, Newton, MA	7	3	Decrease	2	Decrease

FlixMobility	Boston-Albany	South Station, Boston, Albany Bus Terminal, NY	7	3	Decrease	3	Decrease
FlixMobility	Boston-Burlington, VT-Montreal, QE	South Station, Boston, NYC Midtown, Montreal, QE	7	4	Same	6	Increase
FlixMobility	Boston-Hartford, CT	South Station, Boston, Hartford, CT	7	11	New service	10	New service
FlixMobility	Boston-Bangor, ME	South Station, Boston, Bangor, ME	7	1	Decrease	1	Decrease
FlixMobility	Boston-Springfield	South Station, Boston, Cambridge, Springfield	7	8	New service	8	New service
FlixMobility	Boston-Newark, NJ	South Station, Boston, Newark, NJ	7	18	New service	18	New service
FlixMobility	Boston-New York, NY	South Station, Boston, NYC Midtown, NY	7	41	New service	48	New service
FlixMobility	Boston-New Haven, CT	South Station, Boston, New Haven, CT	7	11	New service	8	New service
FlixMobility	Boston-Worcester	South Station, Boston, Union Station, Worcester	7	1	New service	1	New Service
Megabus	Boston-Hartford, CT	Boston South Station, Hartford, CT	7	8	Increase	11	Increase
Megabus	Boston-New Haven, CT	Boston South Station, New Haven, CT	7	1	Same	1	Same
Megabus	Boston-New York, NY	Boston South Station, New York, NY	7	8	Decrease	12	Decrease
Our Bus	Boston-Methuen	Boston, Methuen	7	2	New service	1	New service

Peter Pan Bus Lines	Springfield-Albany	Springfield, Hartford, CT, NYC, NY, Ridgewood, NJ, Kingston, NJ, Catskill Park & Ride, NY, Albany Bus Terminal, NY	7	4	Increase	1	Decrease
Peter Pan Bus Lines	Boston-Springfield	Boston South Station, Worcester Union Station, Hartford, CT, Springfield	7	7	New service	10	New service
Peter Pan Bus Lines	Boston-New Bedford	New Bedford, MA, West Bridgewater, MA, Boston South Station, MA, Logan Airport, MA	7	2	New service	2	New service
Peter Pan Bus Lines	Boston-Providence, RI	Boston South Station, Providence RI	7	5	Decrease	5	Decrease
Peter Pan Bus Lines	Boston-Woods Hole	Boston South Station, Bourne, Falmouth, Woods Hole	7	8	Decrease	7	Same
Peter Pan Bus Lines	Hyannis-Providence, RI	Hyannis, Bourne, Providence, RI	7	4	Decrease	4	Decrease
Peter Pan Bus Lines	New York, NY-Worcester-Springfield-Lee-Lenox-Pittsfield-Williamstown	New York, NY, Worcester Union Station, Springfield, Lee (premium outlets), Lenox, Pittsfield, Williamstown	3	2	Decrease	2	Same
Peter Pan Bus Lines	Boston-Hartford, CT	Boston South Station, Hartford, CT	7	14	Increase	12	Increase
Peter Pan Bus Lines	Boston- New York, NY	Boston South Station, New York, NY	7	17	Increase	17	Same
Peter Pan Bus Lines	Springfield-Hartford-New York	Springfield, Hartford, CT, New York, NY	7	11	Same	10	Decrease

Peter Pan Bus Lines	South Hadley-Boston	South Hadley, (Amherst UMass, Amherst Center, Northampton), Springfield, Hartford, CT, Worcester Union Station, Boston South Station	7	8	Same	8	Same
Plymouth & Brockton	Boston Logan-Woods Hole	Boston Logan, Boston South Station, Sagamore (Bourne) Park & Ride, Falmouth, Woods Hole Steamship Authority	7	4	New service	4	New service
Plymouth & Brockton	Boston Logan-Hyannis/South Shore	Boston Logan, Boston South Station, Rockland Park & Ride, Plymouth Park & Ride, Sagamore (Bourne) Park & Ride, Barnstable Park & Ride, Hyannis Transportation Center	7	20	New service	20	New service
Yankee Line	Boston-Concord-Action	Acton, Boston, Concord	M-F	2	Same	0	N/A

Service Standards

The service standards below outline a minimum level of service that municipalities served by regional bus should receive. Service to a municipality ought to be considered inadequate if it does not meet these standards, and service improvements ought to be developed to provide at least the minimum level of service. These service standards help ensure that regional bus service is convenient for passengers, thereby encouraging ridership and forming a seamless regional network.

Intercity Bus

Intercity bus service to a municipality should:

- Allow a passenger to reach Boston or New York City with no more than one transfer (not including transfers on or from local transit services), including possible transfers at regional or national network connectivity points such as Worcester, Springfield, Hyannis, Albany (NY), Providence (RI), Hartford (CT), Rutland (VT), and Manchester and Portsmouth (NH).
- Allow a passenger to make a day trip and spend 5 hours or more in Boston, Springfield, or Worcester.
- Provide daily service, preferably. However, routes can be started as weekend-only routes to test ridership demand, and if successful, additional service can be added.
- Provide 1 roundtrip per day or more, preferably 2 roundtrips per day or more for places with higher demand (actual or projected).

Commuter Bus

Municipalities with commuter bus service should:

- Allow a passenger to reach a Massachusetts Employment Cluster in a one-seat ride, not counting transfers from local transit.
- Allow a passenger to work a full business day, approximately 8 AM-5 PM.
- Have service every weekday, Monday-Friday.
- Have 2 peak hour roundtrips per day or more.

Evaluations of Service Standards

Municipalities with access to regional bus service in May 2024 were evaluated against the service standards, specific to intercity bus service and commuter bus service. Some municipalities were considered to have inadequate service if their current level of regional bus service did not meet all the service standards. Municipalities that met all the service standards may still be considered for service improvements if unmet needs were identified through the needs analysis documented later in this report.

Municipalities with Intercity Bus Service Only

The following service standards were applied to identify municipalities with intercity bus service:

- Passenger can arrive in Boston or New York City with only one transfer after arriving at a major network connectivity point.
- Passenger can make a day trip and spend 5 hours or more in Boston, Worcester, or Springfield.
- Seven day per week service is preferred.
- Minimum of one roundtrip per day; or two roundtrips per day for places with higher demand.

Intercity bus services were deemed inadequate based on one of two issues related to passengers making day trips to Boston:

1. Passengers can make a roundtrip to Boston in one day but may not have sufficient time to conduct their business (e.g., medical appointment, social visit).
2. Passengers cannot make a day trip to Boston, Worcester, or Springfield.

The following table lists the municipalities with intercity bus service. Comments about service quality are noted in the same table.

Municipality	Meeting All Service Standards (Yes/No)	Type of Inadequate Service
Amherst	Yes	
Bridgewater	Yes	
Cambridge	Yes	
Dartmouth	No	Day trip does not afford adequate time in Boston
Eastham	No	Cannot make this trip outside of summer schedules
Harwich	No	Cannot make this trip outside of summer schedules
Holyoke	No	
Lee	Yes	
Lenox	Yes	
Leominster	Yes	

Lowell	Yes	
Northampton	Yes	
Orleans	No	Cannot make this trip outside of summer schedules
Pittsfield	Yes	Day trip does not afford adequate time in Boston
Provincetown	No	Cannot make this trip outside of summer schedules
South Hadley	Yes	
Springfield	Yes	
Tewksbury	Yes	
Stoughton	Yes	
Truro	No	Cannot make this trip outside of summer schedules
Wellfleet	No	Cannot make this trip outside of summer schedules
Williamstown	No	Day trip does not afford adequate time in Boston

Municipalities with Commuter Bus Service Only

The following service standards were applied to municipalities that currently receive commuter bus service only:

- Passengers within the commute shed of the following major employment destinations may reach the city without a transfer: Boston, Worcester, Springfield, Northampton/Amherst, Albany (NY), Hartford (CT), and Providence (RI).
- Passenger is able to work a full business day (approximately 8am-5pm).
- Service every weekday (Monday-Friday).
- Minimum of two peak hour roundtrips per day.

Municipality	Meeting All Service Standards (Yes/No)	Type of Inadequate Service
Acton	Yes	
Concord	Yes	
Methuen	Yes	

Conclusion

Massachusetts is fortunate to have a comprehensive network of intercity and commuter bus services that meets the defined service standards. Major gaps in this system are caused by geography and challenges in frequency and connections between providers, which may also be caused by a lack of one-seat rides between destinations. Towns in the western part of the state and on Cape Cod did not have bus service to Boston that allowed for a one-day roundtrip with adequate time in the destination city. Additionally, many municipalities have lost service over the years that would either take them to a major employment center or to a frequent connection via another service provider. It is possible that modified schedules and new routes could address issues caused by the need for transfers and long layover times, and for the bus routes that have discontinued since the last comprehensive network assessment. Potential options for these alternatives are presented in the following chapters.

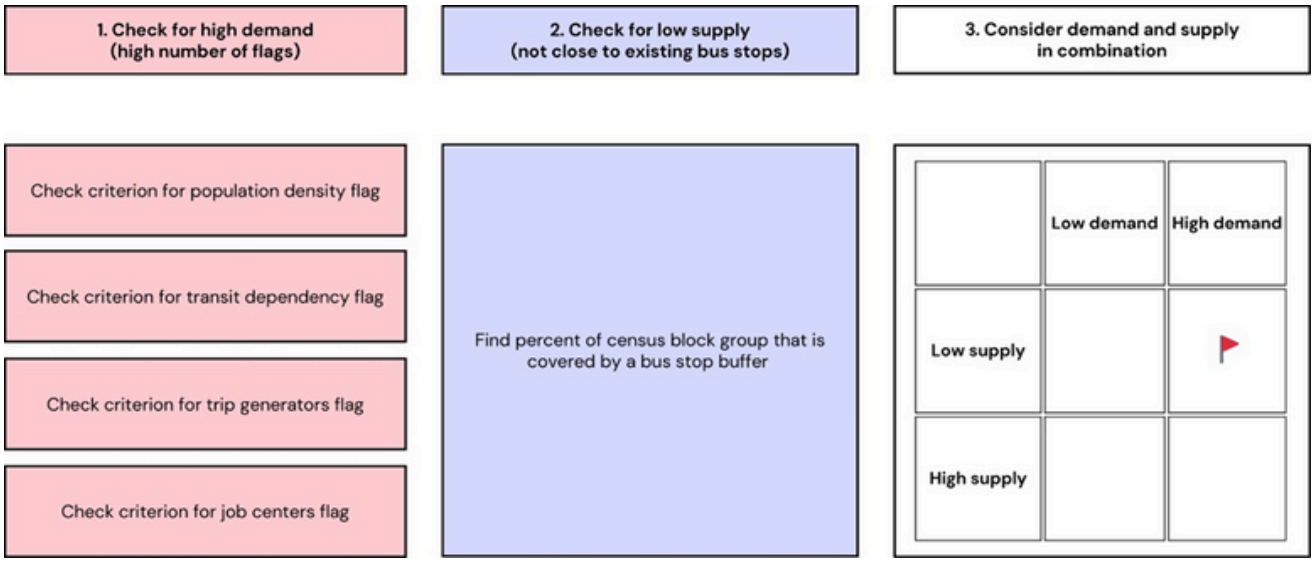
Chapter 3 – Unmet Needs Based on Demographic Data

Introduction

In this chapter we use demographic data to identify areas of Massachusetts that are likely to be good candidates for improved intercity or commuter bus service. We use a few different criteria, or planning guidelines, for this screening based on metrics such as population density, population density of transit-dependent populations, and proximity to major trip generators. This quantitative approach with demographic data complements the qualitative approach taken in Chapter 4 with survey data.

Methodology

The process for determining whether a given census block group should be considered for improved service is explained in more detail in this section. We calculated two summary metrics for each census block group in the state: (1) Number of flags, which encapsulates the demand for service, and (2) Percent existing coverage, which encapsulates the supply of service. A census block group with high demand and low service should be considered a good candidate for new or improved service.


1. Check for high demand (high number of flags)
2. Check for low supply (not close to existing bus stops)
3. Consider demand and supply in combination
Check criterion for population density flag
Check criterion for transit dependency flag
Check criterion for trip generators flag
Check criterion for job centers flag
Find percent of census block group that is covered by a bus stop buffer
Low demand
High demand
Low supply
High supply

1. Checking for high demand

We used the following four indicators to identify places in Massachusetts that may have high demand for new or improved regional bus service. If a census block group met the criterion for a given indicator, we flagged it as a potentially high-need block group for that indicator. Block groups were scored based on the number of flags they received from zero to four.

A. High population density

It is reasonable to expect places with a high population density to be good candidates for regional bus service. A higher presence of people means a higher likelihood that some of them will want or need access to other parts of the state. We used data from the 2018-2022 Census ACS five-year data at the block group level.

Criterion for flag: A block group was flagged if its population density, measured in persons per square mile, fell within the upper quartile of the population densities of all the block groups in its MPO.

	Quartile 1	Quartile 2	Quartile 3	Quartile 4
Persons / square mile	✅	✅	✅	🚩

B. High transit-dependent population

To determine areas with high transit-dependent population densities, we used Regional Environmental Justice "Plus" (REJ+) thresholds. REJ+ is a designation for block groups with high shares of residents fitting the following categories, as a percent of the total block group population:

- Individuals with a disability
- Zero-vehicle households
- Low-income individuals
- People aged 65+
- Nonwhite populations
- Households with limited English proficiency
- Individuals aged 10-17

Criterion for flag: A block group was flagged for a given category if it fell within the upper quartile in its MPO. Block groups with three or more flags were flagged for the final analysis as areas with high transit-dependent populations.

	Quartile 1	Quartile 2	Quartile 3	Quartile 4
Persons with a disability / total population	✅	✅	✅	🚩
Zero-vehicle households / total households	✅	✅	✅	🚩
Low-income persons / total population	✅	✅	✅	🚩
Persons aged 65+ / total population	✅	✅	✅	🚩
Nonwhite persons / total population	✅	✅	✅	🚩
Households with LEP / total households	✅	✅	✅	🚩
Persons aged 10-17 / total population	✅	✅	✅	🚩

	1	2	3	4	5	6	7
Number of categories flagged in Quartile 4	✅	✅	🚩	🚩	🚩	🚩	🚩

C. Presence of major trip generators

We used data from Replica, an online data-model platform, to determine the number of trips ending in each census block group with any of the following purposes:

- Eat
- Errands
- Recreation
- Region departure
- School
- Shop
- Social
- Work

Criterion for flag: A block group was flagged if it fell within the upper quartile in its MPO.

	Quartile 1	Quartile 2	Quartile 3	Quartile 4
Number of trips / day	✅	✅	✅	🚩

D. Presence of major job centers

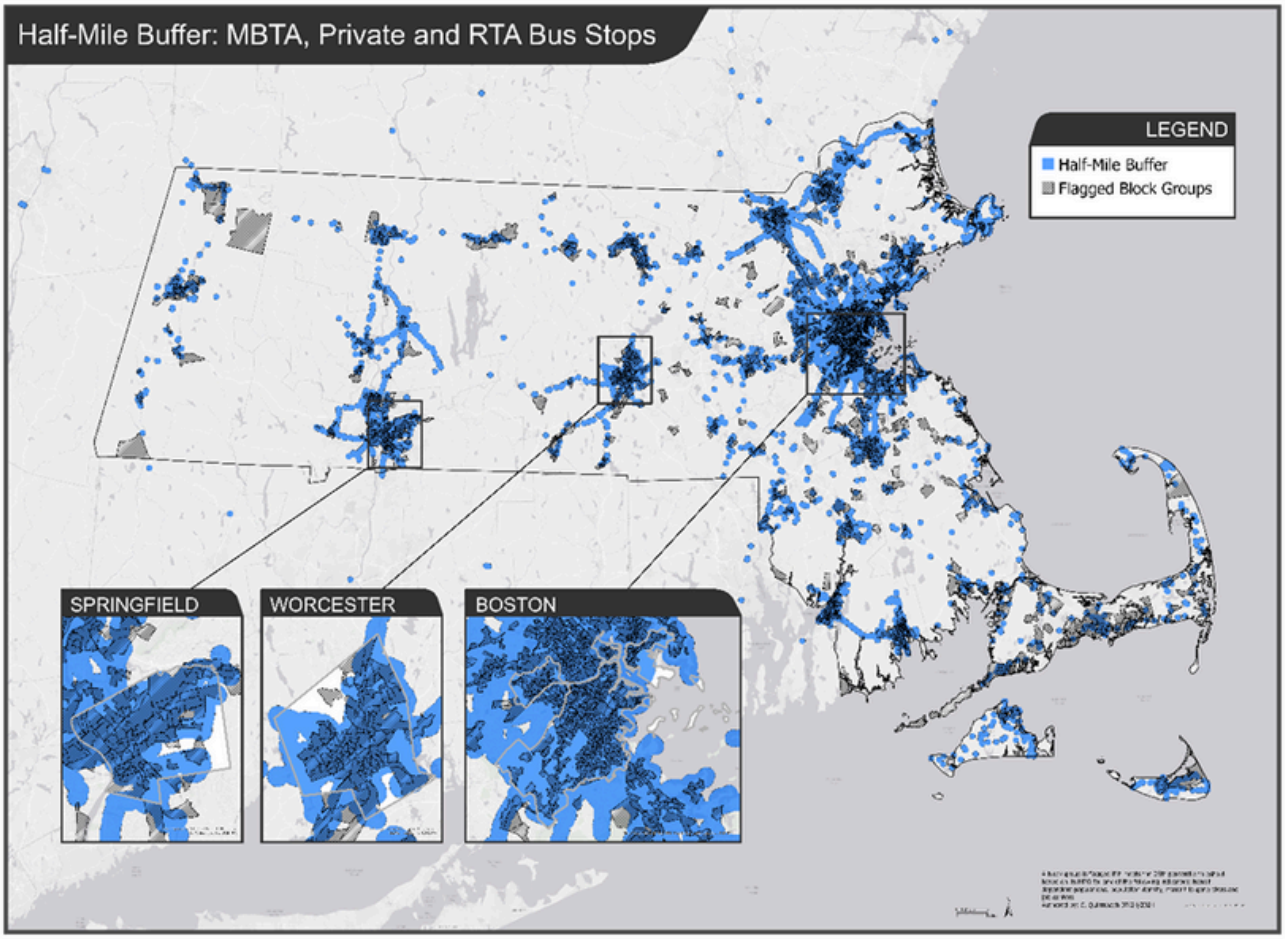
We used data from Replica, an online transportation data-modeling platform, to determine the number of trips ending in each census block group with the trip purpose of work. The data was based on typical Thursdays in 2023 fall.

Criterion for flag: A block group was flagged if it fell within the upper quartile in its MPO.

	Quartile 1	Quartile 2	Quartile 3	Quartile 4
Number of trips / day	✅	✅	✅	🚩

2. Checking for low supply

After determining each flag for each block group in the state, we assessed the extent to which flagged block groups are already covered by bus service. This map shows 0.5-mile service areas around the MBTA, RTA, and private bus stops.

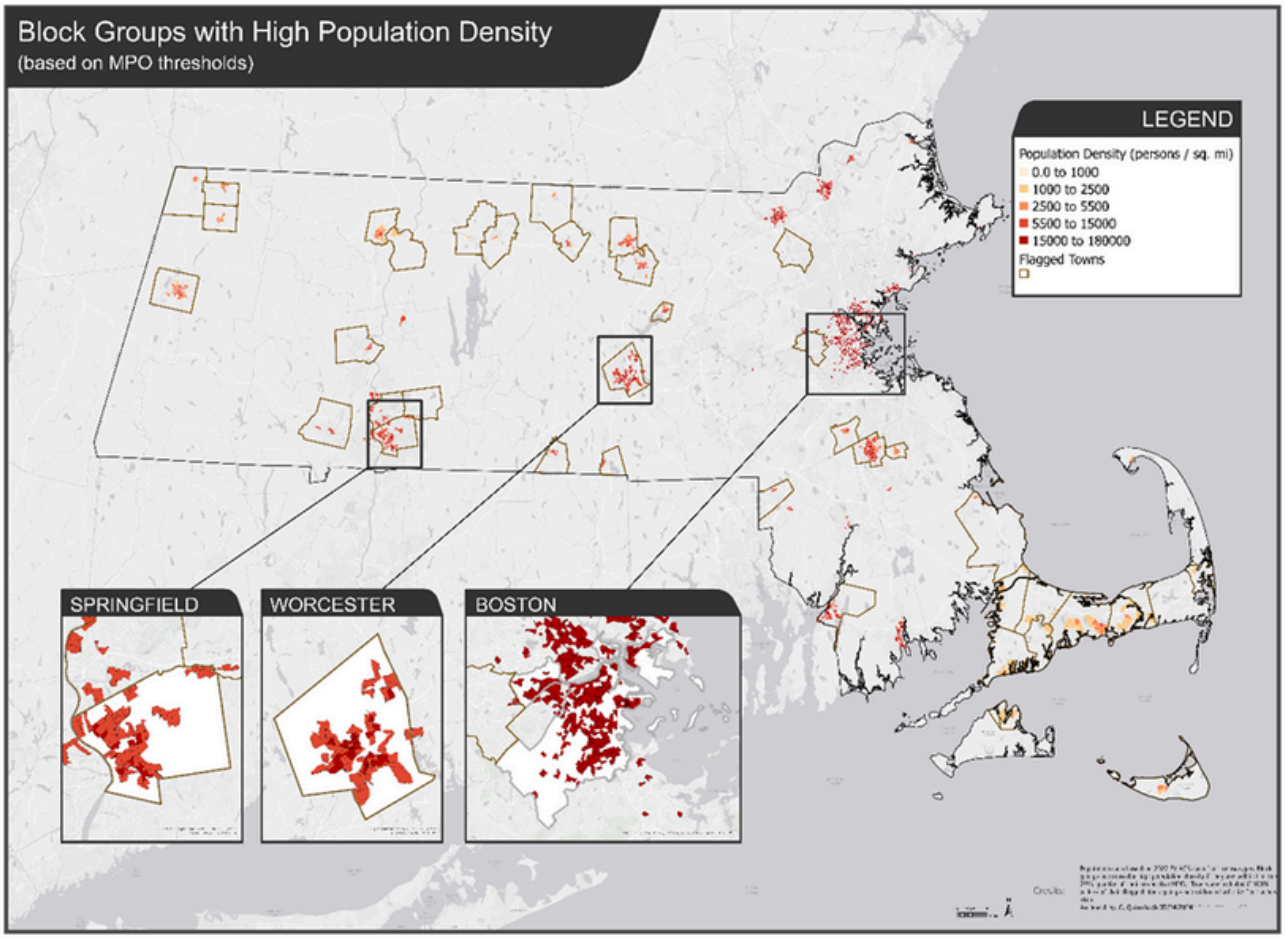


3. Considering demand and supply in combination

Taken together, the indicators for demand and supply allowed us to produce a list of municipalities in the state that would benefit from additional service. Areas with a higher number of flags (up to four) and a lower percent coverage (as low as 0%) are the best candidates. We developed these guidelines in collaboration with RTD staff and by pulling from the established procedures used in the 2016 Regional Bus Study. The next section provides lists of towns that our analysis indicated were good candidates for improved service. We provide a separate list from each of the four demand indicators, as well as a final overall list in the summary.

Data

1. Population density and proximity to bus stops



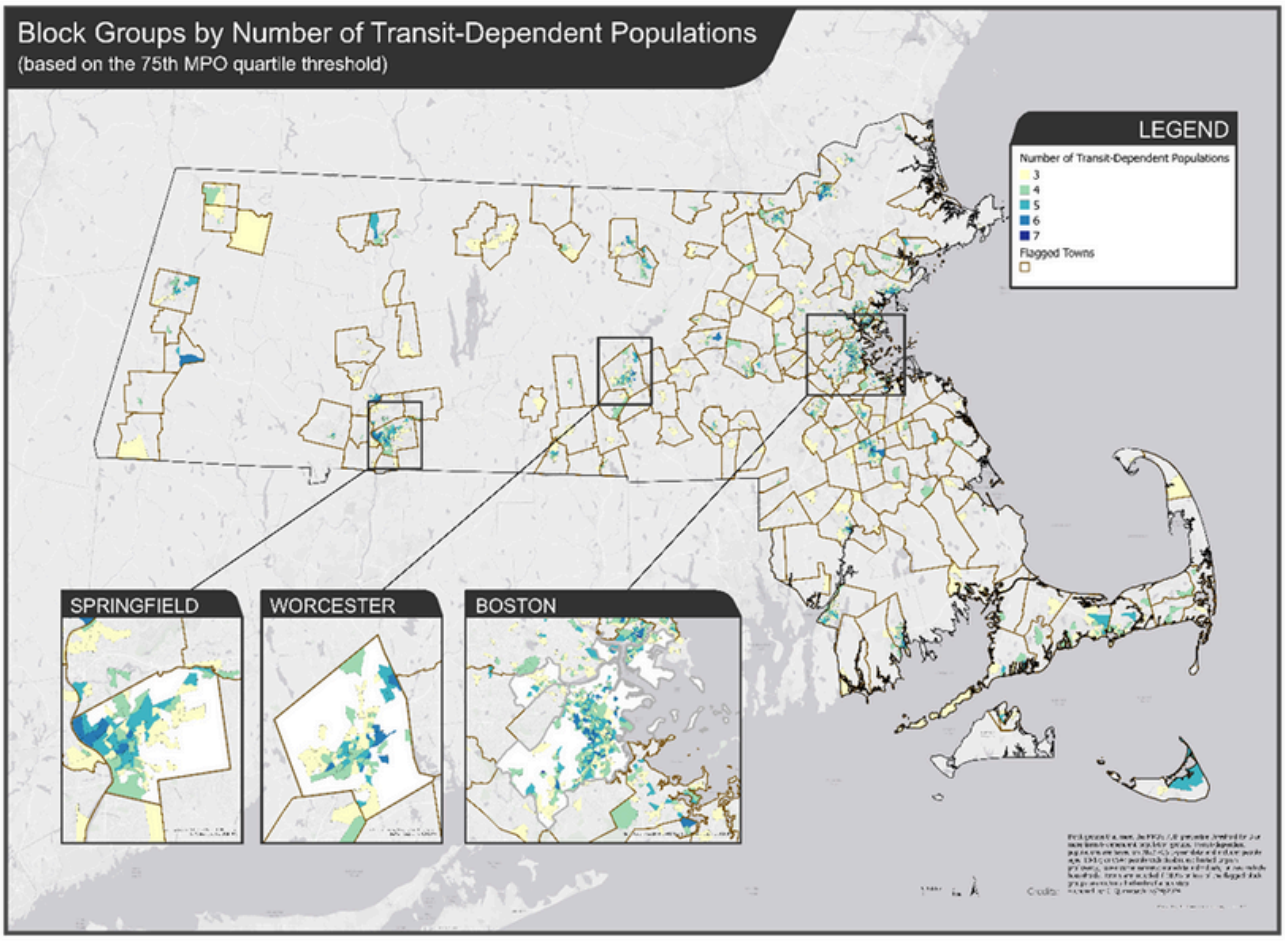
The following table contains all towns that met both of the following conditions:

- The town contains at least one block group with the population density flag.
- Of the total area of flagged block groups in the town, less than 50% falls within 0.5 miles of a bus stop.

Town	Percent covered
Whitman	0
Mashpee	0
Billerica	0
Sandwich	14

Yarmouth	22
Dennis	33
Winchendon	36
Bourne	36
Barnstable	47

2. Transit-dependent population and proximity to bus stops



The following table contains all towns that met both of the following conditions:

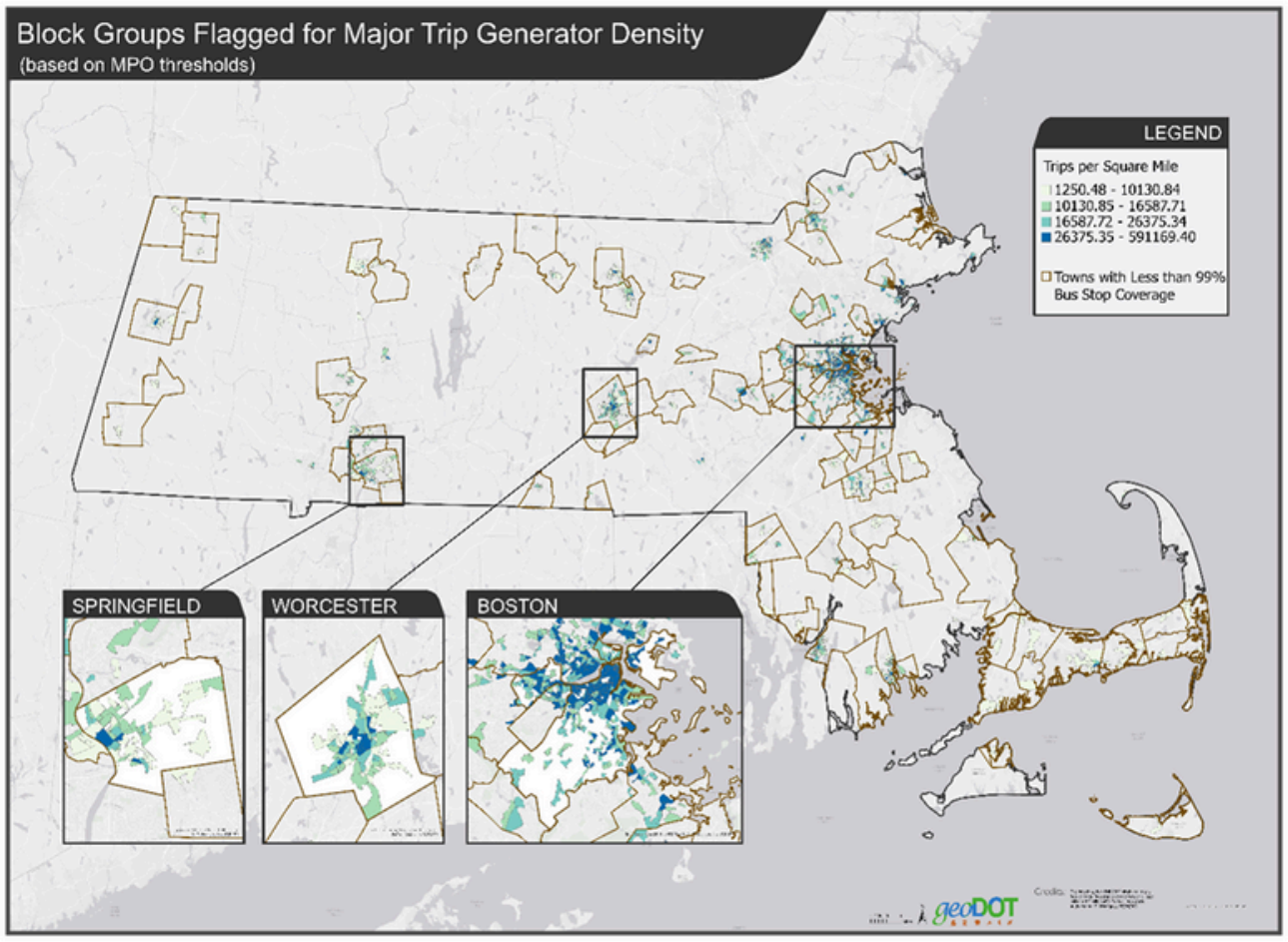
- The town contains at least one block group with the transit-dependent population flag.
- Of the total area of flagged block groups in the town, less than 50% falls within 0.5 miles of a bus stop.

Town	Percent covered
Hanover	0
Westborough	0
Weston	0
Maynard	0
Kingston	0
Swansea	0
Acton	0
East Bridgewater	0
Gosnold	0
Grafton	0
Halifax	0
Medway	0
Northbridge	0
Pepperell	0
Savoy	0
Stow	0
Westport	0
Danvers	0
Bridgewater	0
Sheffield	0
Brookfield	0
Agawam	3
Sharon	4
Lincoln	5
Abington	5
Holbrook	6

Dennis	7
Ipswich	8
Truro	8
Dedham	10
Lynnfield	11
Tyngsborough	11
Concord	12
Adams	13
Mashpee	17
Sandwich	19
Hingham	20
Rockland	20
Raynham	20
Lee	21
Auburn	21
Pembroke	22
Athol	24
Dudley	24
Easthampton	25
Wareham	25
Plymouth	25
Reading	25
Brewster	26
Salisbury	26
Easton	26
Sunderland	29
Yarmouth	30

Amherst	30
Charlton	30
North Adams	32
Hopedale	33
Oxford	33
Winchendon	36
Norton	37
Orange	38
Falmouth	39
Shelburne	43
Norwood	44
Barnstable	45
Harwich	47
Nantucket	47
Longmeadow	48
Hudson	49

3. Major trip generators and proximity to bus stops



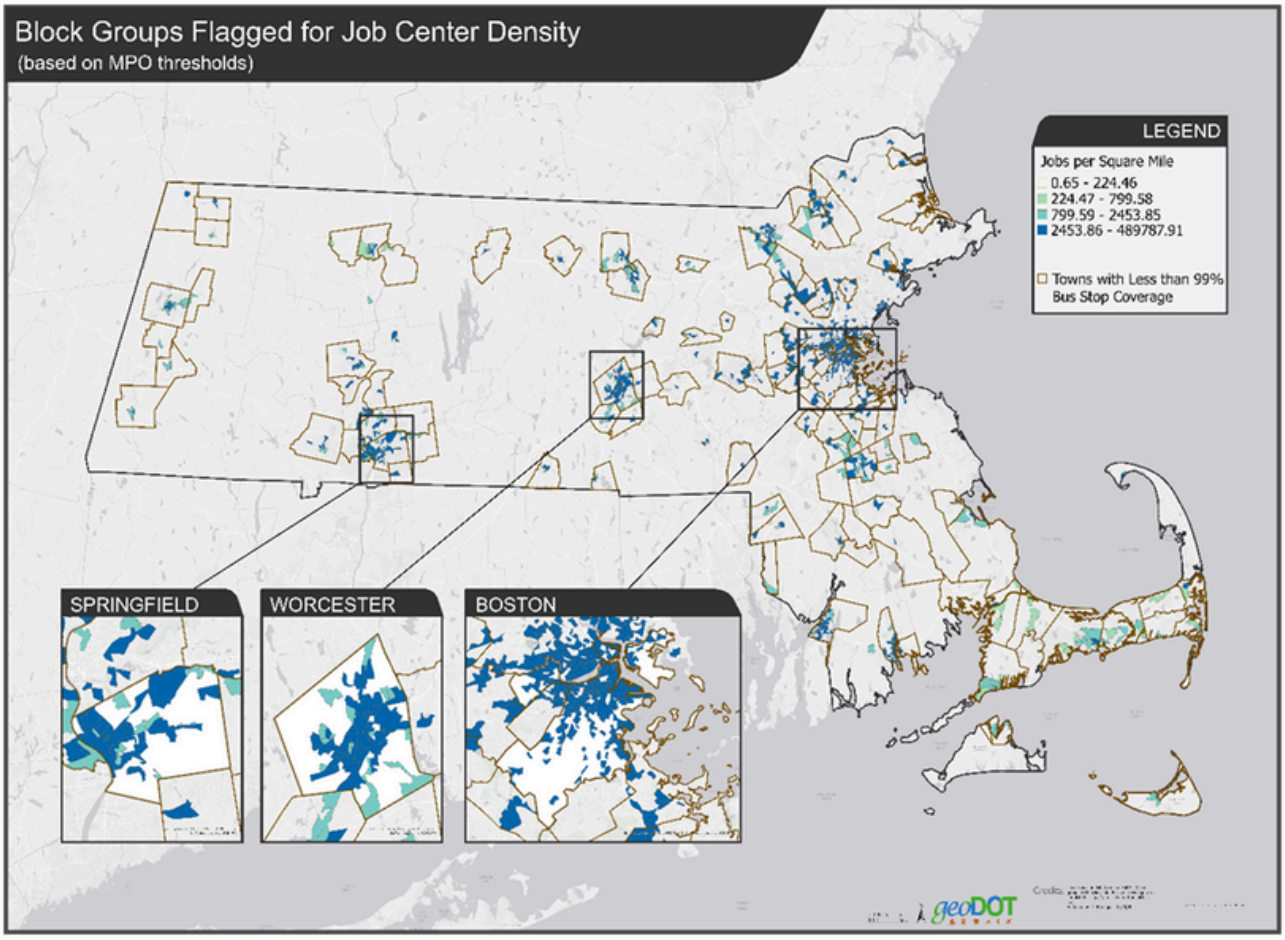
The following table contains all towns that met both of the following conditions:

- The town contains at least one block group with the trip generator flag.
- Of the total area of flagged block groups in the town, less than 50% falls within 0.5 miles of a bus stop.

Town	Percent covered
Hanover	0
Westborough	0
Weston	0
Whitman	0
Seekonk	0

Abington	24
Clinton	26
Mashpee	40
Dennis	41
Sandwich	42
Yarmouth	43
Bourne	44
Stoughton	44
Brewster	46
Orleans	46

4. Job centers and proximity to bus stops

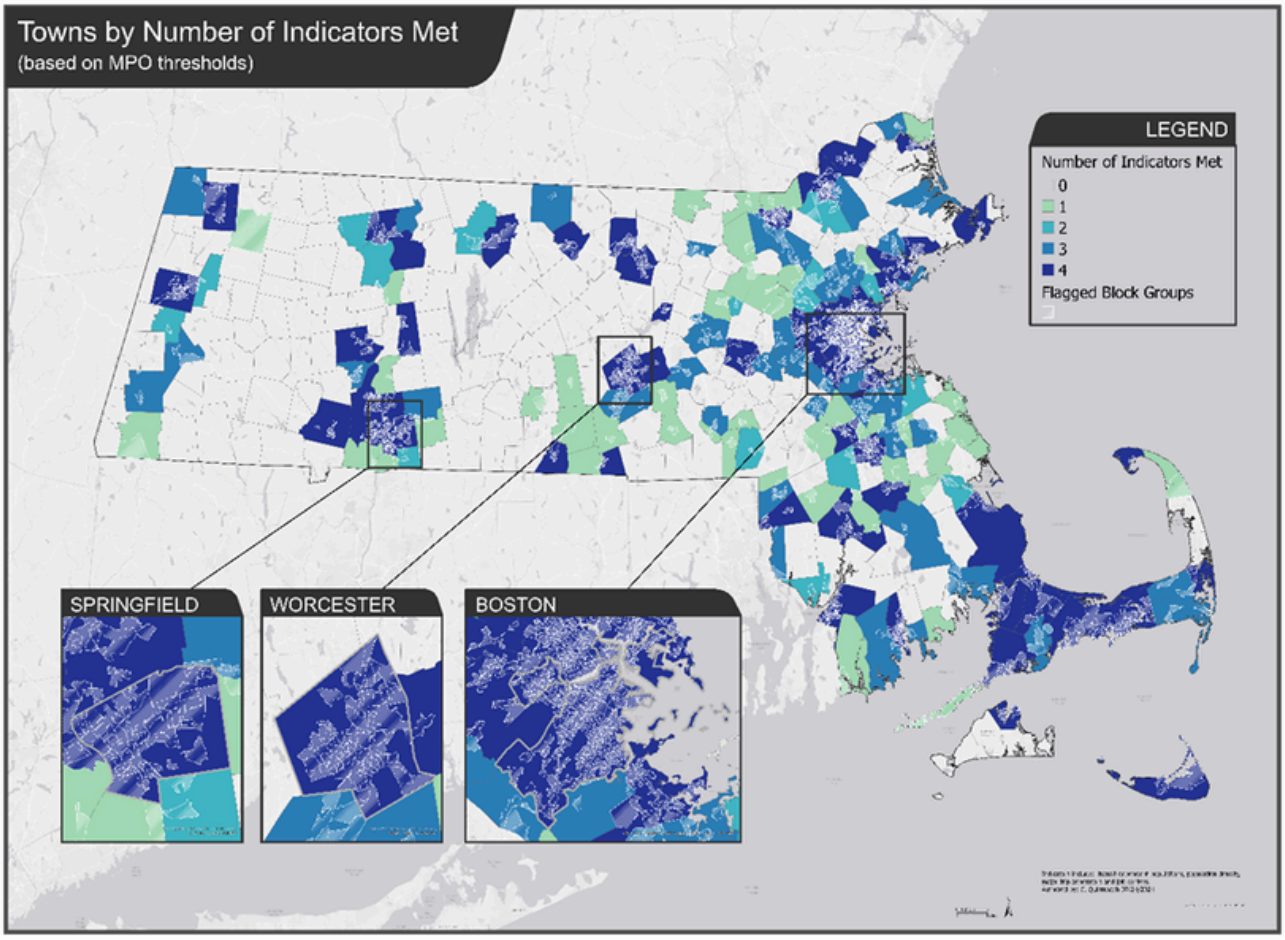


The following table contains all towns that met both of the following conditions:

- The town contains at least one block group with the job center flag.
- Of the total area of flagged block groups in the town, less than 50% falls within 0.5 miles of a bus stop.

Town	Percent covered
Hanover	0
Westborough	0
Weston	0
Whitman	0
Seekonk	0
Maynard	0
Canton	0
Wilbraham	17
Yarmouth	23
Abington	24
Clinton	26
Avon	27
Easton	27
Wakefield	32
Dennis	36
Sandwich	37
Bourne	38
Shelburne	43

Summary



The following table contains all towns that met both of the following conditions:

- The town contains at least one block group that received at least one flag.
- Of the total area of flagged block groups in the town, less than 50% falls within 0.5 miles of a bus stop.

Town	Number of Flags	Percent covered
Acton	1	0
Canton	1	0
East Bridgewater	1	0
Gosnold	1	0
Grafton	1	0

Halifax	1	0
Medway	1	0
Northbridge	1	0
Pepperell	1	0
Savoy	1	0
Stow	1	0
Westport	1	0
Sheffield	1	0
Brookfield	1	0
Agawam	1	3
Sharon	1	4
Lincoln	1	5
Holbrook	1	6
Truro	1	8
Lynnfield	1	11
Tyngsborough	1	11
Concord	1	12
Wilbraham	1	17
Rockland	1	20
Raynham	1	20
Pembroke	1	22
Dudley	1	24
Salisbury	1	26
Avon	1	27
Sunderland	1	29
Charlton	1	30
Hopedale	1	33

Oxford	1	33
Norton	1	37
Longmeadow	1	48
Maynard	2	0
Kingston	2	10
Swansea	2	25
Easton	2	26
Orange	2	43
Shelburne	2	43
Hanover	3	0
Westborough	3	0
Weston	3	0
Whitman	3	0
Seekonk	3	9
Abington	3	13
Ipswich	3	21
Mashpee	3	24
Wareham	3	28
Lee	3	28
Wakefield	3	36
Easthampton	3	38
Brewster	3	39
Reading	3	42
Auburn	3	42
Norwood	3	47
Harwich	3	47
Danvers	3	48

Adams	4	15
Yarmouth	4	22
Dennis	4	22
Athol	4	26
Sandwich	4	28
North Adams	4	33
Clinton	4	39
Bridgewater	4	39
Barnstable	4	41
Bourne	4	42
Orleans	4	46
Amherst	4	48

This list contains 153 towns. However, the gradated nature of these results is important; Bedford, for example, has only one flag and already has 99% coverage. Therefore, Bedford was just on the cusp of qualifying for this list. Meanwhile, Adams has all four flags and only 15% coverage. This is closer to the opposite extreme, a town that very easily qualified for the list. This list and all other lists in this chapter may be shortened by setting a threshold. For example, we might decide to look further into a town's circumstances only if it has below 25% coverage, even if it has a flag.

Chapter 4 – Unmet Needs Identified by Stakeholders

Introduction

The 2024 Regional Bus Study is the latest in a series of studies with similar purposes. In this section, we briefly summarize how these studies established the processes used in the current study. We also use the data from these previous studies to review which areas Massachusetts transit organizations have identified in recent history as good candidates for better regional service.

The most recent iteration of this study occurred in 2020. MassDOT surveyed RTAs, private carriers, metropolitan planning organizations (MPOs), and other general stakeholders. The research team in 2020 partially replicated the process used in 2016, when MassDOT and KFH Group conducted a more comprehensive Regional Bus Network Assessment. The main purpose of the 2020 survey was "to develop a list of potential improvements to the regional bus system serving the Commonwealth and assess the feasibility for implementation." This study supported the Rail and Transit Division's (RTD's) goals to leverage partnerships between public and private organizations to improve statewide regional bus services. Our current study largely follows the same process as the 2016 study, with the exception of a survey for the general public. The following list summarizes the main themes that emerged in the 2016 study:

- Interregional connections including new, direct services are needed between RTA service areas.
- Residents in isolated rural towns need lifeline services to regional urban centers to access employment, higher education, and medical services.
- Commuter service is needed to access suburban employment centers along Route 128 and I-495.
- The Berkshires need intercity bus service that allows for a day trip (five hours) in Boston and New York City.
- Circumferential commuter service is needed along major corridors such as Route 128, I-495, and I-190 so that riders do not need to go into Boston.
- The public's priorities for service improvements are more express service, more trips later in the day, and more commuter trips during the peak periods.

- In addition to service improvements, facility improvements, increased marketing and public information, and more passenger amenities would greatly enhance passenger experiences using regional buses.
- Improvements to intraregional connections are needed in some parts of the state including the Northeast and Southeast. While these needs would mainly fall under the purview of the RTAs, they could also be addressed as part of longer intercity bus routes.
- Many unmet needs identified during this study were more local in nature, indicative of outstanding needs to improve and expand RTA service, which would also facilitate good first and last mile connections to the regional bus network.

Further back in 2013, CTPS conducted the Massachusetts Regional Bus Study. This study laid the groundwork for the demographic analysis of the markets for regional bus service. CTPS also performed an extensive needs analysis, examining underserved areas and limited connectivity between urban areas. This study identified a demand for more frequent service on all routes and more express service on several routes. The following table summarizes the routes that CTPS recommended for further examination of potential demand and feasibility.

Type of service	Routes
Intercity bus service	• Southbridge, Palmer, and Ware connections to Springfield, Worcester, and Boston • Clinton to Worcester and Boston • Adams, Athol, Gardner, and North Adams to Fitchburg and Boston Pittsfield to Boston
Commuter bus service	• Northbridge and Uxbridge to Boston • Hudson and Milford to Boston

The following table summarizes the results of CTPS's survey of regional bus passengers. Passengers indicated these preferences for service improvements.

Type of improvement	Routes
More frequent service	• All routes
More express service	• Boston-Framingham-Worcester-Springfield • Boston-Worcester • Springfield-Amherst • Boston-Rockland-Plymouth-Bourne-Hyannis • Boston-Rockland-Marshfield-Kingston-Plymouth • Providence-Worcester-Springfield-Pittsfield • Albany Boston-Newburyport

Earlier morning departures	• Boston-Topsfield-Boxford-Georgetown-Groveland-Haverhill • Boston-Fall River-Newport
Later evening departures	• Boston-Andover-Lawrence-Methuen • Boston-Bourne-Falmouth-Woods Hole • Boston-West Bridgewater-Raynham-Taunton • Boston-Taunton-New Bedford-Fairhaven

Survey Methodology

For the qualitative part of this study, we surveyed stakeholders throughout the state. This included four categories of organizations that either directly provide or influence regional bus service: (1) RTAs, who often provide fixed-route service that qualifies as regional; (2) MPOs and RPAs, whose main purpose is to facilitate collaboration between regional agencies; (3) private carriers, businesses whose primary purpose is to sell regional transportation service; and (4) general stakeholders, a miscellaneous category of organizations that fall outside the other categories but nevertheless are invested in regional connectivity. Each organization we surveyed brought the perspective of a specific organization, municipality, or region of the state, but together the survey responses provide us with a general picture of the state's needs with respect to regional transportation.

Although all four categories of stakeholders offer valuable information about regional transportation needs, their areas of knowledge vary slightly. For example, private carriers could share better information about the routes between certain pairs of cities, and RTAs could speak to the concerns of the public better than private carriers could. To allow each type of stakeholder to focus on sharing the type of information they were best positioned to share, we created four different versions of the survey. We were able to collect survey responses from a total of 41 organizations. We launched the survey on Monday, March 18, 2024, and closed it on Thursday, May 2, 2024, sending weekly reminders via email and directly reaching out via phone towards the end of the survey period.

RTD reviewed and approved the survey instruments before we distributed them to stakeholders. We used Microsoft Forms as the survey platform. The following table summarizes the survey response rates by category.

Category	Completed	Response Rate
General	8	38%
MPO/RPA	12	71%
Private	6	55%
RTA	15	100%
All	**41**	**64%**

Needs Identified by Survey Respondents

Needs Identified by RTAs

RTAs commonly reported that their areas would benefit from greater frequency and service coverage on evenings and weekends.

BRTA explained that private carriers have decreased service since the start of the pandemic, leaving a current gap to fill. Before the pandemic, passengers could travel between the Berkshires and several urban centers (New York City, Boston, Hartford, Providence, and Albany) on multiple daily routes run by Greyhound and Peter Pan. After the pandemic, Greyhound only runs one daily bus between Albany and Boston, and Peter Pan only runs buses on Thursday and Fridays. To address this gap, BRTA is collaborating with FRTA and PVTA to introduce new connective service between rural communities. Each of the three RTAs in the collaboration would leave and reenter their area each morning and evening.

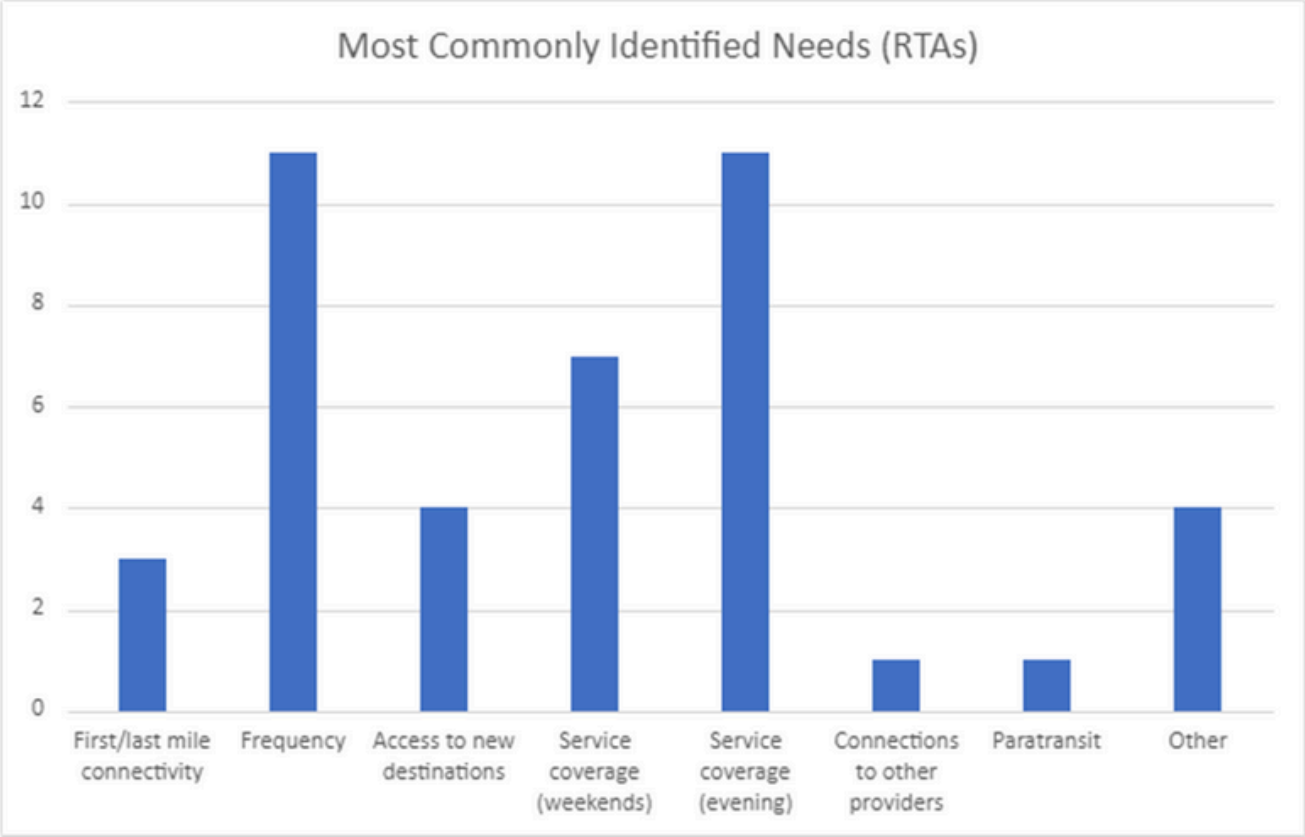
VTA and MART highlighted a need for better medical transportation for seniors from communities without fixed-route service.

MeVa expressed that RTAs should be better coordinated with the commuter rail. RTAs should have more express service within their areas and connections with commuter rail stations, such as from Lawrence to Haverhill to Newburyport Stations. They also cautioned that new intercity bus service should be combined with a “reevaluation” of commuter rail fares to avoid unnecessary competition. Finally, they advocated for commuter rail trips that begin or end within an RTA service district to be fare free (e.g., trips between Ballardvale, Andover, Lawrence, Brandford and Haverhill, trips between Newburyport and Rowley).

The following table summarizes all the routes that RTAs said would be good candidates for additional or improved service.

RTA	Route	Modification
BRTA	Pittsfield – Northampton (via Route 9)	Add new route
	North Adams – Greenfield (via Routes 116, 112, and 2)	Add new route
MWRTA	Worcester – Marlborough	Add express service
	Framingham – Marlborough (via Route 7)	Increase frequency
	Framingham – Boston	Increase frequency
	Framingham - Worcester	Increase frequency
MART	Fitchburg – Boston	Increase frequency
	Leominster – Boston	Increase frequency
	Gardner – Boston	Increase frequency
	Fitchburg – Worcester	Increase frequency
	Leominster – Worcester	Increase frequency
	Gardner – Worcester	Increase frequency
BAT	Quincy Center – Montello Station (MBTA Route 230)	Extend route
	Plymouth – Brockton Westgate Mall	New route
LRTA	Gallagher Terminal - Bedford Veterans Affairs Hospital	New route
	Gallagher Terminal - Wilmington Commuter Rail Station	Increase frequency
	Gallagher Terminal – New York City, NY	New route
	Gallagher Terminal - Littleton	New route
	Gallagher Terminal - Mohegan Sun, CT	New route
	Gallagher Terminal - Foxwoods, CT	New route
SRTA	Fall River – Taunton	New route
	Fall River - Brockton	New route
	Fall River - New Bedford	Add express service
FRTA	Greenfield - North Adams	Unspecified
	Greenfield - Springfield	Unspecified
	Greenfield - Boston	Unspecified

PVTA	Greenfield - Amherst	Unspecified
	Amherst - Worcester	Unspecified
	Springfield - Worcester	Unspecified
CATA	Cape Ann - Danvers and Peabody	Increase frequency
GATRA	Taunton - Boston	New route



Needs Identified by MPOs and RPAs

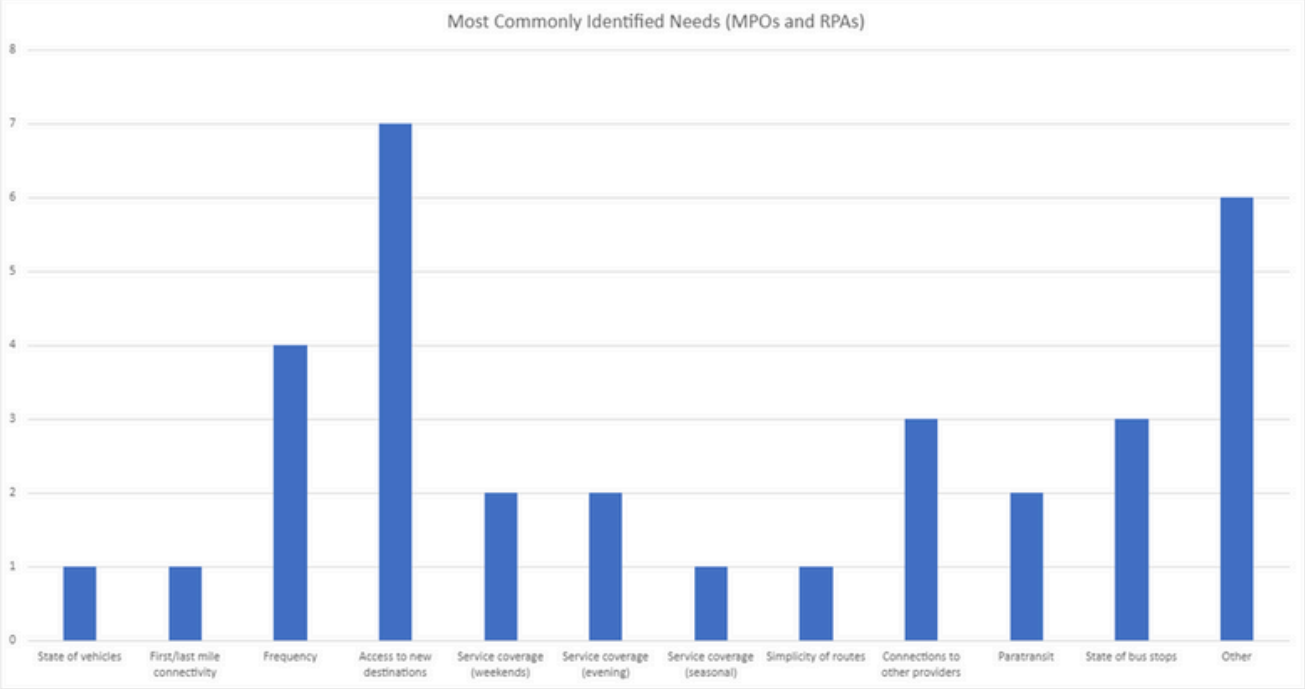
According to MPOs, most passengers use intercity bus to access employment, healthcare, and education. Recreation and errands (such as grocery shopping and other shopping) are less frequent trip purposes. Some MPOs reported that passengers use intercity bus because they do not have access to a personal vehicle.

Half of MPOs reported increased frequency, including the need for new express service, as a need in their region. New service and access to destinations was also a frequently cited need. Some MPOs identified the need for increased service of existing routes and connections between service providers, both public and private.

The Northern Middlesex Council of Governments (NMCOG) highlighted a need for more accessibility for pedestrians, referring to transit as a "pedestrian accelerator." They identified several walkable areas in Greater Lowell (downtown Lowell, Little Cambodia, South Lowell, Pawtucketville, Vinal Square, Chelmsford town center, and Billerica town center) which are not currently connected with convenient frequent transit. They cite an unacceptable example of the commute between South Lowell to downtown Lowell being 45 minutes by bus or 42 minutes by walking. They identify the measurable goal that transit should be faster than walking.

The Southwest Region Planning Commission of New Hampshire advocated for intercity service between Boston and the New Hampshire towns of Keene, Peterborough, Swanzey, Marlborough, and Winchester.

The Cape Cod Commission advocated for service between Providence, RI and the TF Green Airport to Barnstable, MA. They also said passengers would benefit from connections to the new South Coast rail.



Needs Identified by Private Carriers

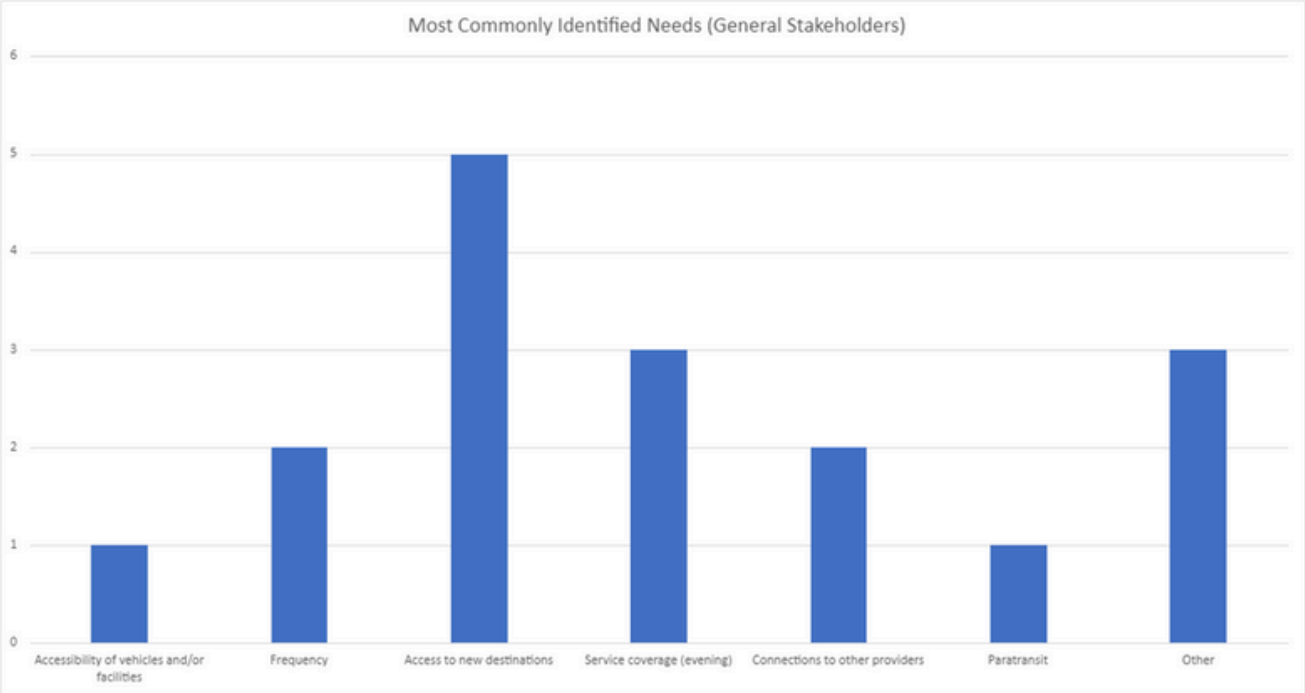
Among private carriers, better connections to transit were listed as the biggest need across the board. Concord Coach Lines highlighted their connection to Amtrak Downeaster, which is relevant for customers who are traveling to or from Maine. These customers would benefit from better connections to North Station. However, they did not hear a demand for better connections to their service within Greater Boston.

Greyhound said that they would like funding to implement a second schedule in addition to their existing service. They believe a second summer seasonal schedule would encourage more riders and provide greater access to intercity bus passengers.

Needs Identified by General Stakeholders

Among general stakeholders, the most common themes were accessibility to destinations via new service, late service coverage, and connections to other providers. Additional categories included increased frequency on transit routes, stable operating funding, and rural transit access. The following table summarizes all the routes that general stakeholders said would be good candidates for addition or improved service.

Organization	Route	Modification
128 Business Council	Burlington - Lexington – Waltham	Increase frequency
	Red Line Stations - Needham – Newton	Increase frequency
	Green Line Stations - Waltham - Lexington	Increase frequency
Seaport TMA	Newton – Seaport	Add new route
	Allston/Brighton - Seaport	Add new route
	Waltham - Seaport	Add new route
Devens Enterprise Commission	Alewife - Devens	Add new route
	Lowell - Devens	Add new route
Lower Mystic TMA	Malden Center - Wellington Station	Increase frequency
	Medford Center - Medford-Tufts Green Line Station	Add connections


Most Commonly Identified Needs (General Stakeholders)
6
5
4
3
2
1
0
Accessibility of vehicles and/or facilities
Frequency
Access to new destinations
Service coverage (evening)
Connections to other providers
Paratransit
Other

Chapter 5 – Recommendations and Policy Considerations

Introduction

This chapter identifies potential regional bus routes that would address the needs based on the inventory of existing service in Chapter 2, the demographic needs analysis in Chapter 3, and input from stakeholders as documented in Chapter 4.

Combining Analyses

In this section we combine the qualitative analysis from the survey results in Chapter 4 and the quantitative analysis from demographic data in Chapter 3. If one dataset corroborates a finding from the other, we highlight it as a particularly good candidate for additional or improved service. For example, if survey respondents reported a need for a new route between Town A and Town B, and at least one town on the shortest route connecting them also appears in the final list of candidates from the demographic analysis, then it may be particularly worth the attention of stakeholders.

In the following table, we match the routes requested by survey respondents with candidate towns yielded by the demographic analysis. For example, BRTA indicated in their survey response that there is demand for a new route between North Adams and Greenfield. This hypothetical route, assuming the shortest path, would start, pass through, or end in 2 towns that were highlighted by the demographic analysis, North Adams and Shelburne.

Respondent	Route requested in survey	Modification	Candidate towns from demographic analysis that fall on the shortest route
BRTA	Pittsfield - Northampton (via Route 9)	Add new route	
	North Adams - Greenfield (via Routes 116, 112, and 2)	Add new route	• North Adams • Shelburne

MWRTA	Worcester - Marlborough	Add express service	
	Framingham - Marlborough (via Route 7)	Increase frequency	
	Framingham - Boston	Increase frequency	• Weston
	Framingham - Worcester	Increase frequency	• Grafton • Westborough
MART	Fitchburg - Boston	Increase frequency	• Acton • Concord • Lincoln
	Leominster - Boston	Increase frequency	• Acton • Concord • Lincoln
	Gardner - Boston	Increase frequency	• Acton • Concord • Lincoln
	Fitchburg - Worcester	Increase frequency	
	Leominster - Worcester	Increase frequency	
	Gardner - Worcester	Increase frequency	
BAT	Quincy Center - Montello Station (MBTA Route 230)	Extend route	
	Plymouth - Brockton Westgate Mall	New route	• Bridgewater
LRTA	Gallagher Terminal - Bedford Veterans Affairs Hospital	New route	
	Gallagher Terminal - Wilmington Commuter Rail Station	Increase frequency	
	Gallagher Terminal - New York City, NY	New route	• Auburn • Charlton
	Gallagher Terminal - Littleton	New route	
	Gallagher Terminal - Mohegan Sun, CT	New route	• Auburn • Oxford
	Gallagher Terminal - Foxwoods, CT	New route	• Auburn • Oxford

SRTA	Fall River - Taunton	New route	
	Fall River - Brockton	New route	• Bridgewater • Raynham
	Fall River - New Bedford	Add express service	• Westport
FRTA	Greenfield - North Adams	Unspecified	• North Adams • Shelburne
	Greenfield - Springfield	Unspecified	• Sunderland
	Greenfield - Boston	Unspecified	• Orange • Athol • Acton • Concord • Lexington • Weston
PVTA	Greenfield - Amherst	Unspecified	• Amherst • Sunderland
	Amherst - Worcester	Unspecified	• Amherst
	Springfield - Worcester	Unspecified	• Wilbraham • Charlton
CATA	Cape Ann - Danvers and Peabody	Increase frequency	• Danvers
GATRA	Taunton - Boston	New route	• Raynham • Bridgewater
128 Business Council	Burlington - Lexington - Waltham	Increase frequency	• Lincoln
	Red Line Stations - Needham - Newton	Increase frequency	
	Green Line Stations - Waltham - Lexington	Increase frequency	
Seaport TMA	Newton - Seaport	Add new route	
	Allston/Brighton - Seaport	Add new route	
	Waltham - Seaport	Add new route	
Devens Enterprise Commission	Alewife - Devens	Add new route	• Acton • Concord • Lincoln
	Lowell - Devens	Add new route	

Lower Mystic TMA	Malden Center - Wellington Station	Increase frequency	
	Medford Center - Medford/Tufts Green Line Station	Add connections	

Next Steps

Although only some locations appear in both the qualitative and quantitative results, this should still be taken as a preliminary screening. If a route was requested by a survey respondent but not supported by the demographic analysis, this should not "disqualify" it from consideration; similarly, if a town was highlighted by the demographic analysis as a good candidate for service but did not show up in survey responses, this should not be automatically disregarded either. We suggest further research into the local demand for all the routes listed, including surveys of potential riders.

As a next step to investigate the feasibility of these potential new routes, RTD may assess the likely operating costs and revenue of service that would address these needs. The following funding sources could be considered. Each funding source has different conditions and requirements regarding the type of service that might be eligible.

- Massachusetts Section 5311(f) rural intercity funding allocation
- Congestion Mitigation and Air Quality (CMAQ) program funding
- Community Transit Grant funds
- Funding provided to private carriers based on inclusion of their operating statistics in the FTA National Transit Database, used to allocate Section 5307 funding for urbanized areas

In this study we have conducted parallel quantitative and qualitative investigations to determine which areas of Massachusetts are well-suited for new or improved bus service. We found that the network of services currently provided by RTAs and private carriers is extensive, providing connectivity across the state to both regional centers and major urban areas. Nevertheless, survey results and demographic analysis suggest that there are still areas with unmet needs.